HZK

INSTRUCTIONS

Multichannel temperature recorder

PZ1008S 8CH
PZ1016S 16CH
PZ1024S 24CH
PZ1032S 32CH
PZ1040S 40CH
PZ1048S 48CH
PZ1056S 56CH
PZ1064S 64CH

HUAZHIKE INSTRUMENT EQUIPMENT CO.,LTD

Preface

Thank you for purchasing our product. Before using this product, please read the operation instructions to ensure that the user can use this product correctly. And check the packing list to confirm the products and accessories. If there is any contact, please contact the company or agent.

Note:

1. Because of the version update, some change about the instruction content and the instrument used, will not be notified.
2. The manual is to be confirmed, and it has been expressed in the simplest way for the user's understanding. If you find that some of the content is not right or not clear, please contact with the company or Contact.

Version : V1.1

Caution:

For your personal safety and proper use of this instrument, please be sure to comply with the specification requirements for operation and measure. And pay strict attention to the following safety regulations.

1. The Protection of the Power and Grounding. The working power supply of this product is AC 220 V. Before start-up power supply, please confirm the matching between the power supply and the working supply, and ensure that the power supply has been grounded, to prevent electric shock, the instrument shell has received a power outlet wire.
2. Please do not operate in an explosive environment, so as to avoid the explosion of personal injury.
3. Please do not turn on the instrument shell, the instrument has a high voltage power in some places, to prevent electric shock.
4. Do not allow the plug connection in the case of charged, so as to avoid electric shock.
5. If the instrument is damaged because of violation of safety rules, the company does not undertake any responsibility.

1. Summary

The multi-channel temperature collector adopts 32 bit high-speed CPU for data processing, using the 5 inch display industry, support K J T type thermocouple input, display mode, the user can read more intuitive parameters, instrument has function, perfect performance advantages and simple operation, can meet the production requirements, laboratory research and measurement.。

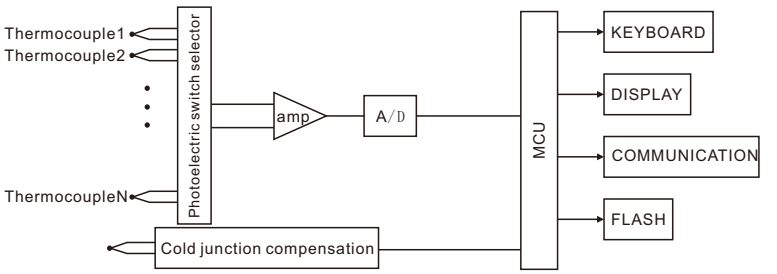
Widely used in lighting appliances, electric tools, household appliances, motor, electric appliances, medicine, petroleum chemical, metallurgy, electric power and other industries and scientific research units and other enterprise in the field of production lines, laboratories, quality inspection departments。

According to the real needs of the user can also customize a variety of measurement functions to meet higher applications。

PZ1000Multichannel temperature recorder has the following characteristics：

- ▲ The 5 inch color display industrial LCD screen, the picture is clear, colorful, wide viewing angle.
- ▲ Using 32 bit MCU design, more accurate measurement, sampling faster and more stable
- ▲ Multi interface display, support for real-time numerical display, time display, column chart display
- ▲ Support for multiple sensor inputs: K J T
- ▲ Independent temperature correction values for each channel.
- ▲ Built in 8G large memory, can record up to 64 files, each file can record 60 thousand sets of data.
- ▲ With USB interface, support U disk download copy records
- ▲ Modular design to facilitate the expansion of user demand expansion
- ▲ Each module 8 channels, the machine supports up to a maximum of 64 channels (8 modules)

2. 基本原理



Basic block diagram

As shown in the figure, the instrument consists of thermocouple, photoelectric switch selector, amplifier, A/D, single-chip microcomputer, keyboard, monitor, communication, data storage, cold end compensation and other components。

The corresponding channel signal selected by the photoelectric switch selector, a signal amplifier for signal amplification, and then through the AD converter to convert analog signals into data signals to the single-chip microcomputer for data processing, temperature measurements from the cold end compensation circuit, get cold end temperature, the measuring signal and the cold end temperature data processing by the single chip microcomputer finally, the correct measuring temperature values are displayed on the display screen。

The keyboard, communication and data memory can be used to analyze and display the data on the display screen. You can also connect the computer through the communication interface directly from the computer for data analysis。

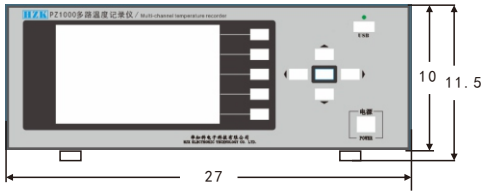
3. Technical index

3. 1、Technical index

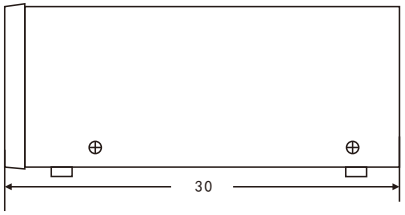
Display mode	5 inch TFT color LCD screen industry
Display form	Real-time list value
Channel number	Each module has 8 channels, up to a maximum of 64 channels
Thermocouple	K J T
K type	-100～1370℃ ±0. 5℃+0.6℃
J type	-100～1200℃ ±0. 5℃+0.6℃
T type	-100～400℃ ±0. 5℃+0.5℃
resolution	0.1℃
Recording interval	1S-9999S Any setting
communication	USB(standard),RS485,RS232(select)
Power	220V±10%, 50Hz/60Hz ≤5W(standard) 86-265V(select) ≤5W
accessories	Each channel is labeled with a K type thermocouple

4. Outline dimension（Company：CM）

Positive

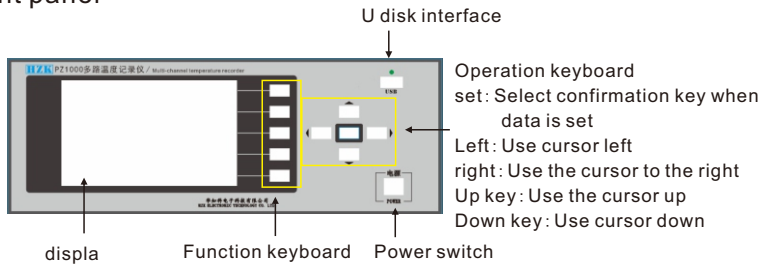


side

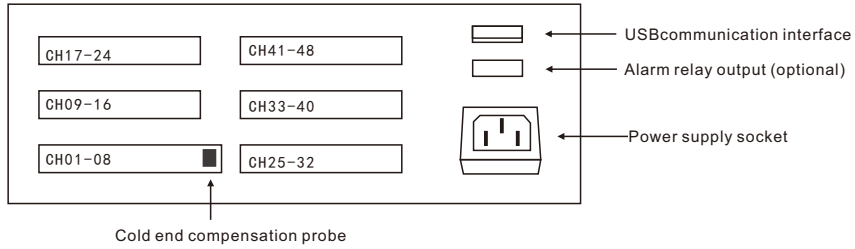


5. Panel description

front panel



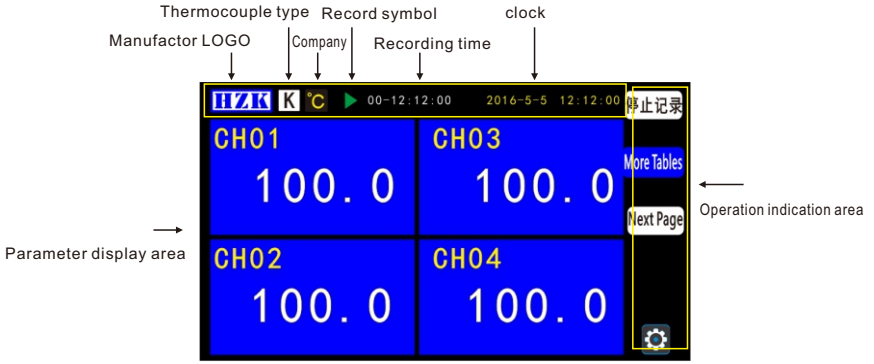
Rear panel



6. Display and operating instructions

6. 1Display interface specification

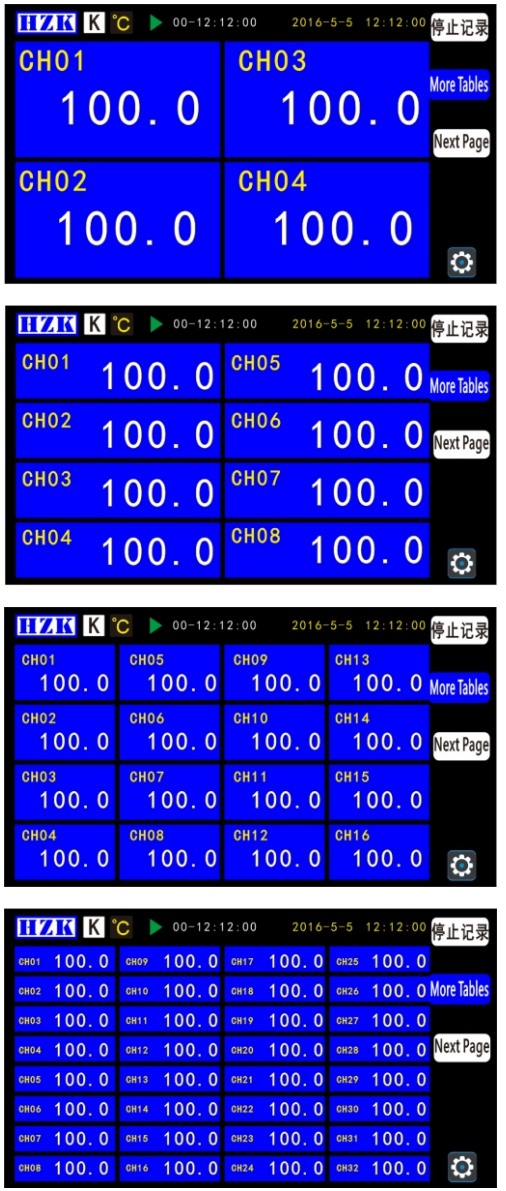
6. 1. 1picture caption



6. 1. 2Boot interface

When the power is displayed on the boot interface, showing the company LOGO, the company name, product model information。

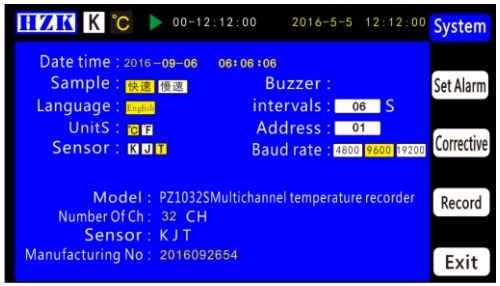
6. 1. 3Real time parameter list display



The real-time parameter interface, which can display a plurality of measurement parameters, display interface is divided into 4 channel data display, data display, 8 channel 16 channel 32 channel data display, data display, can be the flip page display data of each channel.Use the "more" button to switch the 4/8/16/32 channel display page. You can use the "flip" button to display multiple page parameters

Button to enter the system settings interface.

6. 1. 4System settings

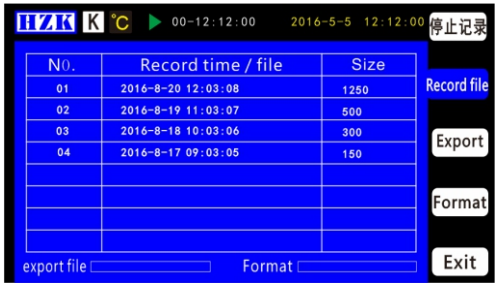


System settings

System settings provide a rich set of menus, clear and easy to use. Provides the date and time, measuring speed, display language, measurement unit, sensor type, buzzer sound selection, recording isolation time, communication address, communication baud rate.Use the confirmation key to select the item to be changed, in the appropriate position to indicate or display the red font, use the up and down keys to add and subtract, press the confirm key to confirm and jump to the next,Until the last

Note: when the record is started, the time, the measuring speed, the measuring unit and the sensor can not be changed.

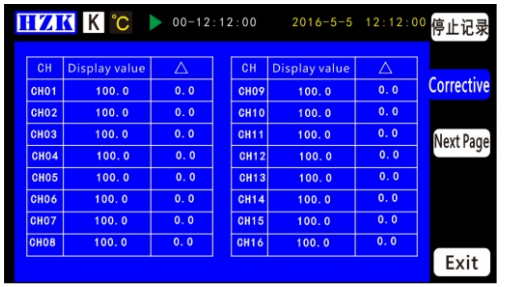
6. 1. 5 recording fil



recording fil

This interface in the list of recorded files, can display real-time recording file size, file format and function provides a progress bar, so that the user can observe real-time file and format of the schedule is completed. The file can only be exported in bulk and the file is formatted.The file export cannot be operated without inserting the U disk.

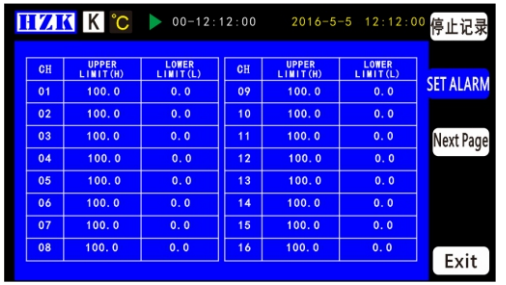
6. 1. 6△Calibration value setting



△Calibration value setting

This interface provides a correction setting for each channel delta values, and can display the current measured temperature values for each channel, in the end the change value, can see the changes of the current value of real time, can be corrected to the actual measured value.The need to change, press the Enter key, each channel delta value position can be changed into numerical red, press the arrow keys to one decimal place and, according to the left and right keys to add and subtract in bits.

6. 1. 7Alarm settings

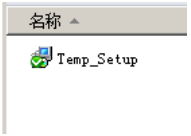


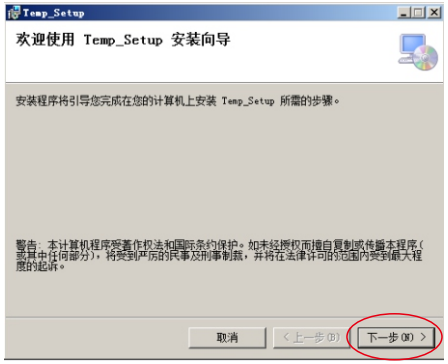
Alarm settings

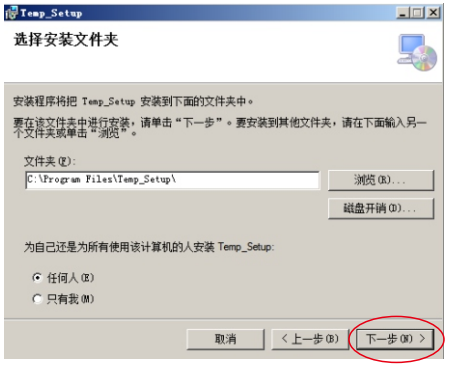
This interface provides the alarm values for each channel can be set, use the left and right arrow keys to select the channel to change the lower limit, the selected location will become red, press the confirm button will pop up the keyboard, direct input set value.In the list of the upper limit, the value will be turned into red, the lower limit will be displayed when the value of black. And will be accompanied by intermittent buzzer sound.

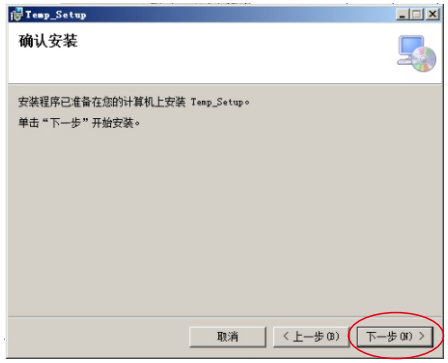
10. Software operating instructions

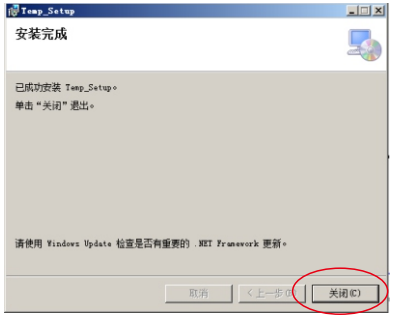
Find files in CD Temp_Setup ， Run the installation directly, as follows。









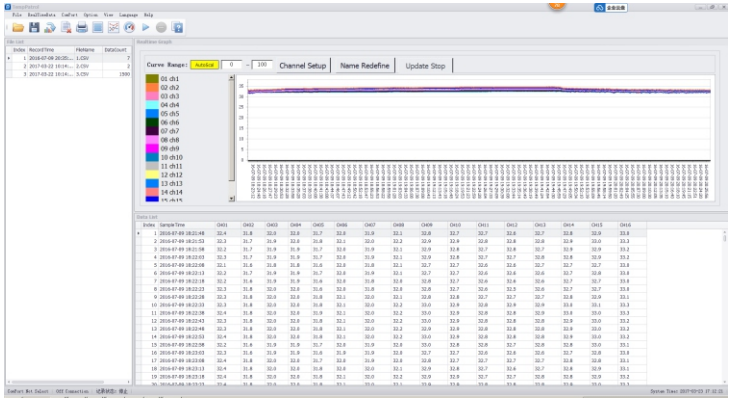


After the installation is completed, then the USB driver installation

After installation, see one on the desktop 

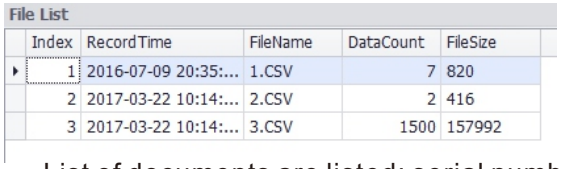
Icon, Click this icon to run the software program.

Enter boot interface



The first connection between the computer and the instrument, install the driver in the file list, and then choose the correct COM in the soft interface, the main interface in the lower left corner of the communication connection is successful.

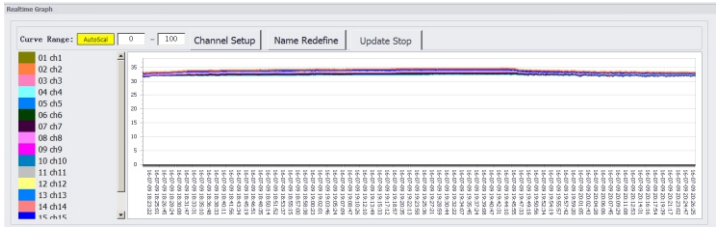
Computer interface provides a wealth of display and analysis functions, you can display a list of files, curve analysis shows that the list of data, real-time temperature list, instrument operation button function



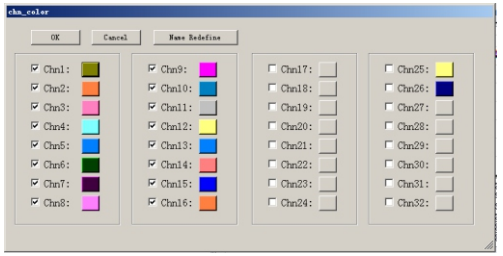
File List

Index	RecordTime	FileName	DataCount	FileSize
1	2016-07-09 20:35:...	1.CSV	7	820
2	2017-03-22 10:14:...	2.CSV	2	416
3	2017-03-22 10:14:...	3.CSV	1500	157992

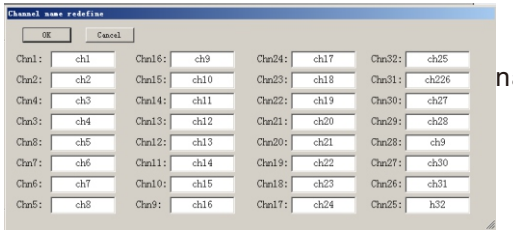
List of documents are listed: serial number, record time, file name, the number of data, a large number of files



Curve labels can be detailed analysis of all the data in the file,You can use the mouse directly to zoom in and out of the curve



You can change the color of each channel in the curve

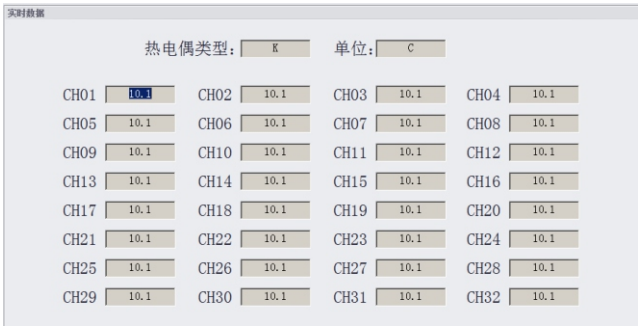


You can customize the name for each channel

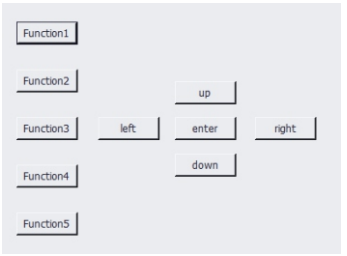
Data List

Index	SampleTime	CH01	CH02	CH03	CH04	CH05	CH06	CH07	CH08	CH09	CH10	CH11	CH12
1	2016-07-09 18:21:48	32.4	31.8	32.0	32.0	31.7	32.0	31.9	32.1	32.8	32.7	32.7	32.6
2	2016-07-09 18:21:53	32.3	31.7	31.9	32.0	31.8	32.1	32.0	32.2	32.9	32.9	32.8	32.8
3	2016-07-09 18:21:58	32.2	31.7	31.9	31.9	31.7	32.0	31.9	32.1	32.9	32.8	32.7	32.8
4	2016-07-09 18:22:03	32.3	31.7	31.9	31.9	31.7	32.0	31.9	32.1	32.9	32.8	32.7	32.7
5	2016-07-09 18:22:08	32.1	31.6	31.8	31.8	31.6	32.0	31.8	32.1	32.7	32.7	32.6	32.6
6	2016-07-09 18:22:13	32.2	31.7	31.9	31.9	31.7	32.0	31.9	32.1	32.7	32.7	32.6	32.6
7	2016-07-09 18:22:18	32.2	31.6	31.9	31.9	31.6	32.0	31.8	32.0	32.8	32.7	32.6	32.6
8	2016-07-09 18:22:23	32.3	31.8	32.0	32.0	31.6	32.0	31.8	32.0	32.8	32.7	32.6	32.5
9	2016-07-09 18:22:28	32.3	31.8	32.0	32.0	31.8	32.1	32.0	32.1	32.8	32.8	32.7	32.7
10	2016-07-09 18:22:33	32.3	31.8	32.0	32.0	31.8	32.1	32.0	32.2	33.0	32.9	32.8	32.9
11	2016-07-09 18:22:38	32.4	31.8	32.0	32.0	31.9	32.1	32.0	32.2	33.0	32.9	32.8	32.8
12	2016-07-09 18:22:43	32.3	31.8	32.0	32.0	31.8	32.1	32.0	32.2	33.0	32.9	32.8	32.8
13	2016-07-09 18:22:48	32.3	31.8	32.0	32.0	31.8	32.1	32.0	32.2	32.9	32.9	32.8	32.8
14	2016-07-09 18:22:53	32.4	31.8	32.0	32.0	31.8	32.1	32.0	32.2	33.0	32.9	32.8	32.8
15	2016-07-09 18:22:58	32.2	31.6	31.9	31.9	31.7	32.0	31.9	32.0	33.0	32.8	32.8	32.7
16	2016-07-09 18:23:03	32.3	31.6	31.9	31.9	31.6	31.9	31.9	32.0	32.7	32.7	32.6	32.6
17	2016-07-09 18:23:08	32.4	31.8	32.0	32.0	31.7	32.0	31.9	32.0	32.8	32.7	32.7	32.7

The list of data can be displayed for each channel and each time interval. The user can directly open the *.CSV file directly with the EXCEL.



Real time data list can display the current measured value in real



The instrument can be used directly to the remote operation of the button page.

Verification condition

project	Reference ratio or range	Reference ratio or range
ambient temperature℃	20	±5
Ambient humidity%RH	45～75	
Atmospheric pressure KPa	86～106	
AC supply voltage V	220	±2%
AC power supply frequency Hz	50	±1%
AC power supply waveform	sine wave	ß=0.05
External electromagnetic interference	Should avoid	
aeration	good	
Sunlight exposure	Avoid direct	

Packing list

Host	1PCS
Power cord	1PCS
Use manual	1PCS
Certificate of conformityWarranty card	1PCS
Thermocouple wire	1PCS/CH

Product certificate

Product name: Multichannel temperature recorder

Product model: _____

Product number: _____

Date: _____

Examination clerk: _____

Verification conclusion: _____

Product warranty card

●Warranty description:

1. Warranty period within 12 months from the date of purchase
2. Warranty equipment in the warranty period, in the normal use and maintenance of the case, the instrument problems, after inspection, the company will provide free repair and replacement parts.

●The following conditions are not free maintenance

1 products from the company's technical personnel to repair, change, modification, the user to replace any of the internal parts.

2 serial number has been altered or inconsistent with the specified

3 damage caused by the infiltration of water or other substances into the machine

●The company may also provide maintenance services, which require more than a free warranty

name		Model	
Tel		Purchase date	
address		number	
Overhaul date	Maintenancerecord		Maintenance man

HZK KZH INSTRUMENT EQUIPMENT CO., LTD

Sales service, please contact the local dealer